

IN THE CLAIMS:

The following is a complete listing of the claims and replaces all earlier listings and all earlier versions.

1. (Currently Amended) An image processing apparatus comprising:
data input means for inputting image data and storing the image data
in a memory;
addition means for adding a predetermined code to the image data
stored in ~~said~~ the memory; and
control means for controlling access to ~~said~~ the memory by said data
input means and said addition means,
wherein said control means controls said data input means and said
addition means so as [[to]] substantially simultaneously to operate ~~execute~~ said data input
means and said addition means.

2. (Currently Amended) The apparatus according to claim 1, wherein
said control means can arbitrarily control connection switching and simultaneous operation
of a plurality of components including said data input means, ~~said~~ the memory, and said
addition means.

3. (Currently Amended) The apparatus according to claim 2, wherein,
when said data input means and said addition means simultaneously access ~~said~~ the
memory, said control means controls the access by performing bus arbitration.

4. (Currently Amended) The apparatus according to claim 3, wherein, when said data input means and said addition means simultaneously access ~~said~~ the memory, said control means stops either of said data input means and said addition means by the bus arbitration, or alternately operates said data input means and said addition means by time division.

5. (Currently Amended) The apparatus according to claim 4, wherein said control means operates said data input means while a difference between the number of lines of image data input by said data input means and the number of lines processed by said addition means does not reach a predetermined number ~~of lines~~.

6. (Currently Amended) The apparatus according to claim 5, wherein the predetermined number ~~of lines~~ is the number of lines necessary for addition of the predetermined code by said addition means.

7. (Currently Amended) The apparatus according to claim 2, wherein said control means dynamically changes a usable size in ~~said~~ the memory in accordance with operation statuses of the plurality of components.

8. (Original) The apparatus according to claim 1, wherein the predetermined code includes a code unique to the apparatus.

9. (Original) The apparatus according to claim 8, wherein said addition means adds the predetermined code in yellow.

10. (Original) The apparatus according to claim 1, wherein said data input means inputs image data scanned by a scanner.

11. (Currently Amended) The apparatus according to claim 1, further comprising image formation means for forming an image on the basis of the image data which is stored in ~~said~~ the memory and to which the predetermined code is added, wherein said control means also controls access to ~~said~~ the memory by said image formation means.

12. (Currently Amended) An image processing system comprising:
an image input device for inputting image data;
a memory device for holding the image data;
an image processing apparatus for adding a predetermined code to the image data held in said memory device; and
a control device for controlling access to said memory device by said image input device and said image processing apparatus,
wherein said control device controls said image input device and said image processing apparatus so as ~~[[to]]~~ substantially simultaneously to operate said image input device and said image processing apparatus.

13. (Original) The system according to claim 12, further comprising an image formation device for forming an image on the basis of the image data which is held in said memory device and to which the predetermined code is added,

wherein said control device also controls access to said memory device by said image formation device.

14. (Original) A control method for an image processing apparatus having data input means for inputting image data, addition means for adding a predetermined code to the image data, a memory for holding the image data, and control means for controlling access to the memory by a plurality of components including the data input means and the addition means, comprising:

the data input step of storing the image data input by the data input means in the memory; and

the addition step of causing the addition means to add the predetermined code to the image data stored in the memory,

wherein the data input step and the addition step are substantially simultaneously executed by the control means.

15. (Original) A control program in an image processing apparatus having data input means for inputting image data, addition means for adding a predetermined code to the image data, a memory for holding the image data, and control means for controlling access to the memory by a plurality of components including the data input means and the addition means, comprising:

a code of the data input step of storing the image data input by the data input means in the memory; and

a code of the addition step of causing the addition means to add the predetermined code to the image data stored in the memory,

wherein the data input step and the addition step are substantially simultaneously executed by the control means.

16. (Original) A storage medium which stores the program defined in claim 15.

17. (Currently Amended) An image processing apparatus comprising:
data input means for inputting image data and storing the image data in a memory;

addition means for adding a predetermined code to the image data stored in said memory; and

control means for controlling access to ~~said~~ the memory by said data input means and said addition means,

wherein said control means controls said data input means and said addition means so as to ~~parallel~~-operate said data input means and said addition means in parallel.

18. (Currently Amended) The apparatus according to claim 17, wherein said control means can arbitrarily control connection switching and simultaneous operation

of a plurality of components including said data input means, ~~said~~ the memory, and said addition means.

19. (Currently Amended) The apparatus according to claim 18, wherein, when said data input means and said addition means simultaneously access ~~said~~ the memory, said control means controls the access by performing bus arbitration.

20. (Currently Amended) The apparatus according to claim 19, wherein, when said data input means and said addition means simultaneously access ~~said~~ the memory, said control means stops either of said data input means and said addition means by the bus arbitration, or alternately operates said data input means and said addition means by time division.

21. (Currently Amended) The apparatus according to claim 20, wherein said control means operates-said data input means while a difference between the number of lines of image data input by said data input means and the number of lines processed by said addition means does not reach a predetermined number ~~of lines~~.

22. (Currently Amended) The apparatus according to claim 21, wherein the predetermined number ~~of lines~~ is the number of lines necessary for addition of the predetermined code by said addition means.

23. (Currently Amended) The apparatus according to claim 18, wherein said control means dynamically changes a usable size in ~~said~~ the memory in accordance with operation statuses of the plurality of components.

24. (Original) The apparatus according to claim 17, wherein the predetermined code includes a code unique to the apparatus.

25. (Original) The apparatus according to claim 24, wherein said addition means adds the predetermined code in yellow.

26. (Original) The apparatus according to claim 17, wherein said data input means inputs image data scanned by a scanner.

27. (Currently Amended) The apparatus according to claim 17, further comprising image formation means for forming an image on the basis of the image data which is stored in ~~said~~ the memory and to which the predetermined code is added, wherein said control means also controls access to ~~said~~ the memory by said image formation means.

28. (Currently Amended) An image processing system comprising:
an image input device for inputting image data;
a memory device for holding the image data;

an image processing apparatus for adding a predetermined code to the image data held in said memory device; and

a control device for controlling access to said memory device by said image input device and said image processing apparatus,

wherein said control device controls said image input device and said image processing apparatus so as to ~~parallel-operate~~ said image input device and said image processing apparatus in parallel.

29. (Original) The system according to claim 28, further comprising an image formation device for forming an image on the basis of the image data which is held in said memory device and to which the predetermined code is added, wherein

said control device also controls access to said memory device by said image formation device.

30. (Currently Amended) A control method for an image processing apparatus having data input means for inputting image data, addition means for adding a predetermined code to the image data, a memory for holding the image data, and control means for controlling access to the memory by a plurality of components including the data input means and the addition means, comprising:

the data input step of storing the image data input by the data input means in the memory; and

the addition step of causing the addition means to add the predetermined code to the image data stored in the memory,

wherein the data input step and the addition step are
~~parallel-executed~~ by the control means in parallel.

31. (Currently Amended) A control program in an image processing apparatus having data input means for inputting image data, addition means for adding a predetermined code to the image data, a memory for holding the image data, and control means for controlling access to the memory by a plurality of components including the data input means and the addition means, comprising:

a code of the data input step of storing the image data input by the data input means in the memory; and

a code of the addition step of causing the addition means to add the predetermined code to the image data stored in the memory,

wherein the data input step and the addition step are
~~parallel-executed~~ by the control means in parallel.

32. (Original) A storage medium which stores the program defined in claim 31.